

AMENDMENTS TO THE CLAIMS

1-49 (Canceled)

50. (New) An apparatus for vibration isolation comprising:

an actuating device (4, 8) between a vibration-isolating table (3) and an intermediate plate (2), said actuating device (4, 8) having zero-power characteristics or negative spring characteristics;

a spring element (K_1) between said intermediate plate (2) and a base (1), said spring element (K_1) having specified positive spring characteristics;

a spring element (K_3) between said vibration-isolating table (3) and said base (1), said spring element (K_3) having positive spring characteristics,

wherein a damper (C_1) is between said intermediate plate (2) and said base (1), a damper (C_3) being between said vibration-isolating table (3) and said base (1).

51. (New) The apparatus for vibration isolation according to claim 50, wherein said damper (C_1) is in parallel with said spring element (K_1), said damper (C_3) being in parallel with said spring element (K_3).

52. (New) The apparatus for vibration isolation according to claim 50, wherein said damper (C_1) has a specified damping rate, said damper (C_3) having said specified damping rate.

53. (New) The apparatus for vibration isolation according to claim 50, wherein said spring element (K₁) supports said intermediate plate (2) on said base (1), said spring element (K₃) supporting said vibration-isolating table (3) on said base (1).

54. (New) The apparatus for vibration isolation according to claim 50, further comprising:

a linear actuator (A1) between said intermediate plate (2) and said base (1), said linear actuator (A1) being in contact with said base (1) and said intermediate plate (2).

55. (New) The apparatus for vibration isolation according to claim 50, further comprising:

a spring element (K₂) between said vibration-isolating table (3) and said intermediate plate (2), said spring element (K₃) being in contact with said vibration-isolating table (3) and said intermediate plate (2).

56. (New) The apparatus for vibration isolation according to claim 55, wherein said spring element (K₂) has positive spring characteristics.

57. (New) The apparatus for vibration isolation according to claim 50, wherein said actuating device (4, 8) attracts said vibration-isolating table (3) and said intermediate plate (2) toward one another.

58. (New) The apparatus for vibration isolation according to claim 50, wherein said actuating device (4, 8) is an actuator (8), said actuator (8) having negative spring characteristics.

59. (New) The apparatus for vibration isolation according to claim 50, wherein said actuating device (4, 8) is a magnetic levitation mechanism (4), said magnetic levitation mechanism (4) having permanent magnets (6) and electromagnets (7).

60. (New) The apparatus for vibration isolation according to claim 59, wherein said permanent magnets (6) are on said vibration-isolating table (3), said electromagnets (7) being on said intermediate plate (2).

61. (New) The apparatus for vibration isolation according to claim 59, wherein said permanent magnets (6) are on said intermediate plate (2), said electromagnets (7) being on said vibration-isolating table (3).

62. (New) The apparatus for vibration isolation according to claim 59, wherein a load acts on said vibration-isolating table (3), an attraction of said electromagnets (7) is variable with changes in said load.

63. (New) The apparatus for vibration isolation according to claim 50, wherein said spring element (K_3) is a pneumatic spring (9).

64. (New) The apparatus for vibration isolation according to claim 50, wherein said spring element (K_1) is in contact with said intermediate plate (2) and said base (1), said damper (C_1) being in contact with said intermediate plate (2) and said base (1).

65. (New) The apparatus for vibration isolation according to claim 50, wherein said spring element (K_3) is in contact with said vibration-isolating table (3) and said base (1), said damper (C_3) being in contact with said vibration-isolating table (3) and said base (1).

66. (New) The apparatus for vibration isolation according to claim 50, wherein said intermediate plate (2) is between said actuating device (4, 8) and said spring element (K_1), said actuating device (4, 8) being between said intermediate plate (2) and said vibration-isolating table (3).

67. (Withdrawn-New) The apparatus for vibration isolation according to claim 50, wherein a portion of said vibration-isolating table (3) is between said actuating device (4, 8) and said spring element (K_3), a portion of said intermediate plate (2) being between a segment of said vibration-isolating table (3) and said actuating device (4, 8).

68. (New) A method for vibration isolation comprising:

installing an actuating device (4, 8) between a vibration-isolating table (3) and an intermediate plate (2), said actuating device (4, 8) having zero-power characteristics or negative spring characteristics;

installing a spring element (K_1) between said intermediate plate (2) and a base (1), said spring element (K_1) having specified positive spring characteristics;

installing a spring element (K_3) between said vibration-isolating table (3) and said base (1), said spring element (K_3) having positive spring characteristics,

wherein a damper (C_1) is between said intermediate plate (2) and said base (1), a damper (C_3) being between said vibration-isolating table (3) and said base (1).

69. (New) A method for vibration isolation comprising:

isolating vibration between a vibration-isolating table (3) and an intermediate plate (2), an actuating device (4, 8) having zero-power characteristics or negative spring characteristics to isolate said vibration between said vibration-isolating table (3) and said intermediate plate (2);

isolating vibration from a base (1) to said intermediate plate (2), a spring element (K_1) having specified positive spring characteristics to isolate said vibration from said base (1) to said intermediate plate (2);

isolating vibration from said base (1) to said vibration-isolating table (3), a spring element (K_3) having positive spring characteristics to isolate said vibration from said base (1) to said vibration-isolating table (3);

wherein a damper (C_1) is between said intermediate plate (2) and said base (1), a damper (C_3) being between said vibration-isolating table (3) and said base (1).